

SPECIAL FORECASTS AND WARNINGS.

WEATHER AND CROPS.

WEATHER WARNINGS.

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[Dated: Weather Bureau, Washington, Sept. 5, 1919.]

SPECIAL FORECASTS.

Forecasts of wind and weather conditions at the surface and aloft were furnished daily to the Post Office Department and to several Army fields where special work is being carried on. The "Flying Weather" forecasts inaugurated during the month of July, 1919, for the use of the Air Service of the Army were made twice daily throughout the month. On August 10 the number of districts for which the forecasts were made was changed from 7 to 13, the present subdivisions corresponding to the geographical areas in use by the Weather Bureau. Special advices were transmitted daily by radio to the U. S. S. *Tern*, the U. S. S. *Brant*, and the U. S. S. *Partridge* while en route from Hampton Roads, Va., to Panama.

WASHINGTON FORECAST DISTRICT.

On August 8 there were strong indications of the development of a tropical disturbance in the Windward Islands near St. Lucia, as evidenced by a pressure reading of 29.78 inches at that place, showing a fall of 0.12 inch in 12 hours, and later in the day by a moderate sea swell from the south at Roseau, Dominica. The following message was sent to ports in the eastern Caribbean Sea:

Moderate tropical disturbance southeast of Porto Rico apparently moving slowly westward. Caution shipping interests.

On the same day advices were sent to points in the western Caribbean as follows:

Strong indications of tropical disturbance in eastern Caribbean Sea. It will move westward.

Information was also sent to Gulf and Atlantic ports and to the Navy Department for broadcasting to vessels at sea, as follows:

There are strong indications of tropical disturbance over eastern Caribbean Sea in approximately longitude 63° and latitude 14°. It will advance along a westerly course.

On the 9th the following message was given general distribution:

Tropical disturbance eastern Caribbean Sea. Approximate location latitude 15°, longitude 69°, moving westward. Intensity unknown. Caution advised vessels in Caribbean Sea.

Again on the 10th information was sent as follows:

Tropical disturbance in Caribbean Sea moving westward. Approximate position latitude 16°, longitude 74°. Intensity unknown. Caution advised vessels central and western Caribbean.

On the 11th the following information was disseminated:

Tropical disturbance in Caribbean Sea is moving westward in about latitude 15°. Apparently of slight intensity. Indications are that it will not pass into Gulf of Mexico.

The disturbance advanced westward, as indicated in the advices, and with decreasing intensity, for reports from land stations and scattered observations from vessels available at this time show no indication of its presence in the extreme western Caribbean. In its earlier stages it was of slight to moderate intensity. In a

letter from R. Z. Kirkpatrick, chief hydrographer, Balboa Heights, Canal Zone, dated August 12, he states:

The special cablegrams of the 8th, 9th, 10th, and 11th, giving the progress of the hurricane, have been much appreciated by the Canal authorities, the shipping interests, and the 15th naval district. * * * A sea captain just in from New York reports that he passed through a moderate gale in the Caribbean on the 10th and 11th.

On the evening of the 12th there were some indications of a development on the Carolina coast (see Low No. 3), and moderate to fresh easterly winds were forecast for the middle Atlantic coast. On the following morning a disturbance was central off the Virginia coast with increasing intensity, and northeast-storm warnings were accordingly ordered at 10 a. m. from Delaware Breakwater to Boston, accompanied by the information that the disturbance would move northward with increased intensity. On the evening of the 13th the warnings were extended northward to Eastport, and on the 14th warnings were continued from New York to Eastport. Strong easterly winds and gales occurred along the coast.

On the 17th an advisory message for fresh, possibly strong, easterly winds was sent to Atlantic ports between Sandy Hook and Boston and winds of the character indicated occurred.

On the evening of the 20th advices for fresh to possibly strong west to northwest winds were sent to ports on Lake Superior and northern Lake Michigan, and on the 25th advices were sent for fresh to strong northwest winds on eastern Lake Superior, northern Lake Huron, and the eastern shore of northern Lake Michigan. Both of these advices were fully justified.

WARNINGS FROM OTHER DISTRICTS.

Chicago Forecast District.—No frost warnings were issued during the month, except for the cranberry marshes of Wisconsin on the 24th, 30th and 31st. The first of these warnings was not verified on account of decreasing pressure over the northern lake region during the night of the 24th-25th; the second warning was partially verified; the third was fully verified, except in northwestern Wisconsin. Light frost occurred at a few places on the 27th and 28th, for which no warnings were issued; however, no damaging temperature was registered at any point.

Special fire-weather forecasts have been telegraphed daily throughout the summer to the district forester at Missoula, Mont., who distributes them to forest rangers located at various points in Montana. This service has been of unusual importance on account of the abnormally hot, dry weather that has prevailed in Montana much of the summer and the consequent increased fire hazard.

Special forecasts were telegraphed to Springfield, Ill., on the 15th, 18th, and 20th in the interests of the State fair.—Charles L. Mitchell.

Denver Forecast District.—No general storm occurred in the district during the month. Thundershowers, with heavy rains in localities, occurred during the early days of the month in the eastern and southern parts of the dis-

trict, but unusually dry weather continued in Utah. Seasonable temperature prevailed generally. No special warnings were issued.—*Frederick W. Brist.*

New Orleans Forecast District.—No special warnings were issued and no general storm occurred without warnings. Local thundersqualls occurred on the Texas coast at Port Arthur on the 8th, and at Galveston on the 21st.—*I. M. Cline.*

San Francisco Forecast District.—August was a quiet month in this district with nearly normal temperatures in California, Washington, and northern Idaho. They were slightly above normal in Oregon, southern Idaho, and Nevada.

Rainfall in California, Nevada, and western Oregon was too light to be of benefit to vegetation or to mitigate the forest-fire hazard, which was acute in this territory during the entire month, and acute in Washington, Idaho, and eastern Oregon till the closing days of the month, when well-distributed showers occurred.

Fire-weather warnings were issued to some one or more parts of the district on 13 days, and practically all were verified.

There have been more forest fires this season than for a number of years, and there is now no question but that fire-weather warnings are of great assistance to the forest rangers. The following unsolicited testimonials regarding them were received during the month of August:

OREGON FOREST FIRE ASSOCIATION,
Portland, Oreg., August 14, 1919.

To loggers:

The United States Weather Bureau has instituted a telegraphic fire-weather warning service, which has been used by this association to great advantage. It has been found that their predictions of the coming or continuance of dry weather or high winds are of great value.

As you know, the especially dangerous portion of the fire season is now approaching.

We unqualifiedly recommend the Weather Bureau service, and should you desire to receive it will be glad to arrange this for you upon return of the inclosed postal card.

Very truly, yours,

HUGH HENRY, *Secretary.*

WASHINGTON FOREST FIRE ASSOCIATION,
Seattle, Wash., August 23, 1919.

Mr. E. A. BEALS,
District Forecaster, San Francisco, Calif.

Dear Mr. BEALS:

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Your messages this year have been especially good and helpful to us. I wish to thank you again for the interest you have taken in our work.

Yours, very truly,

G. J. JOY, *Chief Fire Warden.*

No warnings other than fire-weather warnings were necessary, nor were they issued during the month.—*E. A. Beals.*